

PATENT COOPERATION TREATY

PCT/EP2004/003480

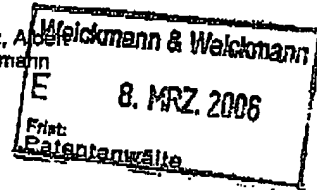
From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

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Date of mailing (day/month/year) 02 March 2006 (02.03.2006)	
Applicant's or agent's file reference 32499P WO	IMPORTANT NOTIFICATION
International application No. PCT/EP2004/003480	International filing date (day/month/year) 01 April 2004 (01.04.2004)
Applicant CONSTRUCTION RESEARCH & TECHNOLOGY GMBH et al	

1. Transmittal of the translation to the applicant.

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The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).

☒

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

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The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EG, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Authorized officer Yolaine Cussac Facsimile No. +41 22 338 70 80
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Form PCT/IB/338 (January 2004)

Translation**PATENT COOPERATION TREATY****PCT****INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 32499P WO	FOR FURTHER ACTION See Form PCT/PEA/416	
International application No. PCT/EP2004/003480	International filing date (day/month/year) 01.04.2004	Priority date (day/month/year) 03.04.2003
International Patent Classification (IPC) or national classification and IPC		
Applicant CONSTRUCTION RESEARCH & TECHNOLOGY GMBH		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (Indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
- This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

Form PCT/PEA/409 (cover sheet) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/003480

Box No. 1	Basis of the report
1.	<p>With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:</p> <p><input type="checkbox"/> international search (Rule 12.3 and 23.1(b))</p> <p><input type="checkbox"/> publication of the international application (Rule 12.4)</p> <p><input type="checkbox"/> international preliminary examination (Rule 55.2 and/or 55.3)</p> <p>2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):</p> <p><input type="checkbox"/> the international application as originally filed/furnished</p> <p><input checked="" type="checkbox"/> the description:</p> <p>pages <u>1-38</u> _____ as originally filed/furnished</p> <p>pages* _____ received by this Authority on _____</p> <p>pages* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the claims:</p> <p>nos. <u>1-39</u> _____ as originally filed/furnished</p> <p>nos.* _____ as amended (together with any statement) under Article 19</p> <p>nos.* _____ received by this Authority on _____</p> <p>nos.* _____ received by this Authority on _____</p> <p><input type="checkbox"/> the drawings:</p> <p>sheets _____ as originally filed/furnished</p> <p>sheets* _____ received by this Authority on _____</p> <p>sheets* _____ received by this Authority on _____</p> <p><input type="checkbox"/> a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.</p> <p>3. <input type="checkbox"/> The amendments have resulted in the cancellation of:</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (specify): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (specify): _____</p> <p>4. <input type="checkbox"/> This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(e)).</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (specify): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (specify): _____</p>

* If item 4 applies, some or all of these sheets may be marked "superseded."

Form PCT/IPEA/409 (Box No. 1) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY		International Application No. PCT/EP2004/003480
Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement	
1. Statement		
Novelty (N)	Claims 23-39	YES
	Claims 1-22	NO
Inventive step (IS)	Claims 23-39	YES
	Claims 1-22	NO
Industrial applicability (IA)	Claims 1-39	YES
	Claims	NO
2. Citations and explanations (Rule 70.7)		
<p>1. The present report refers to the following documents:</p> <p>D1: DE 101 22 444 A (BAYER AG) 14 November 2002 (2002-11-14)</p> <p>D2: EP 0 595 149 A (BAYER AG) 4 May 1994 (1994-05-04)</p> <p>D3: DE 26 51 505 A (BAYER AG) 24 May 1978 (1978-05-24)</p> <p>2. Claims 1-22 of the present application describe aqueous polyurethane resins that are defined by the method by which they are produced. Firstly, a hydrophilic macromonomer (A) (ii) is prepared by reaction of a hydrophilic alkyl- or arylpolyalkylene glycol with a polyisocyanate (step a1), and this pre-adduct from a1 is then reacted with an isocyanate-reactive compound C) to form said macromonomer (A) (ii). The macromonomer (A), which is characterised by a monomodal molar mass distribution, is processed in a series of further reactions to form a polyurethane dispersion, wherein initially, an NCO prepolymer is formed from the macromonomer (A) (ii) and</p>		

Form PCT/ISA/409 (Box No. V) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/003480

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement

polyisocyanate (step b1) and in further steps b2 to b6, this NCO prepolymer is reacted with a polymer polyol, chain extenders (b2) and anionically modified polyol (b3) in a solvent. In the standard manner, these steps are then followed manner by dispersion in water (b4), neutralisation (b5) and chain breakage (b6).

The series of steps b2-b6 represents the classical procedure for producing anionic/hydrophiled aqueous polyurethane dispersions, such as is described for example in D1-D3. In contrast to the teaching of these publications, first the macromonomer (A) (ii) is produced with narrow molar mass distribution. However, the production of this macromonomer as per example A.1 of the application is comparable to those of the non-ionic-hydrophilic chain extender as per example 1a) of D3. A structural difference can also be identified between these components in the end product. The further processing of the polyurethane dispersion in D3 likewise contains a comparable series of steps to those in the application.

Since the product of claims 1-22 is defined merely by the reaction sequence and not by any macroscopically measurable parameters at all, the question arises as to how a person skilled in the art might distinguish the claimed dispersions from those as per D3, but also those as per D1 and D2, which likewise contain non-ionic, hydrophilic alkylene oxide and also ionic structural elements.

Form PCT/ISA/409 (Box No. V) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/003480

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

It is not sufficient to state that the dispersions have a "new kind of polymer structure" or "an even distribution of the hydrophilic centres along the main polymer chain". The fact that the macromonomer (A) (ii) has a narrow molar mass distribution should not be identifiable in the end product, the polyurethane dispersion. The stated optimised distribution between ionic and non-ionic stabilisation and even distribution of these essential structural element is not defined in any way in the claims and thus it is not possible to identify a difference with respect to the cited prior art. Consequently, claims 1-22 are not novel over D1 to D3.

However, novelty can be acknowledged for method claims 23-29 and the use claims 30-39, since none of the citations describes the sequential procedure (b1 to b6) for producing aqueous PU dispersions. The technical problem addressed by the present application can be considered to be the provision of an alternative procedure for producing such dispersions, and this procedure was not obvious from the prior art and thus involves an inventive step (PCT Article 33(2) and (3)).